DEPARTMENT OF ENERGY

10 CFR Part 430

[EERE-2021-BT-DET-0022]

RIN 1904–AF25

Energy Conservation Program: Final Determination of Air Cleaners as a Covered Consumer Product

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Final rule; final determination.

SUMMARY: The U.S. Department of Energy ("DOE") has determined that air cleaners qualify as a covered product under Part A of Title III of the Energy Policy and Conservation Act, as amended ("EPCA"). DOE has determined that classifying air cleaners as covered products is necessary or appropriate to carry out the purposes of EPCA, and that the average U.S. household energy use for air cleaners is likely to exceed 100 kilowatt-hours per year.

DATES: This final determination is effective **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: The docket for this rulemaking, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at *www.regulations.gov*. All documents in the docket are listed in the *www.regulations.gov* index.

However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

The docket web page can be found at *www.regulations.gov/docket/EERE-2021-BT-DET-0022*. The docket web page contains instructions on how to access all documents, including public comments, in the docket.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:

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I. Statutory Authority

EPCA[1] authorizes DOE to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part B[2] of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency for certain consumer products, referred to generally as "covered products."[3] In addition to specifying a list of consumer products that are covered products, EPCA contains provisions that enable the Secretary of Energy to classify additional types of consumer products as covered products. For a given consumer product to be classified as a covered product, the Secretary must determine that: classifying the product as a covered product is necessary or appropriate to carry out the purposes of this chapter; and the average annual per-household energy use by products of such type is likely to exceed 100 kilowatt-hours ("kWh") (or its British thermal unit ("Btu") equivalent) per year. (42 U.S.C. 6292(b)(1))[4]

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[1] All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Pub. L. 116-260 (Dec. 27, 2020), which reflect the last statutory amendments that impact Parts A and A-1 of EPCA.
[2] For editorial reasons, upon codification in the U.S. Code, Part B was redesignated Part A.
[3] The enumerated list of covered products is at 42 U.S.C. 6292(a)(1)–(19).
[4] DOE has defined "household" to mean an entity consisting of either an individual, a family, or a group of unrelated individuals, who reside in a particular housing unit. For the purpose of this definition: Group quarters means living

When considering covering additional consumer product types, DOE must first determine whether these criteria from 42 U.S.C. 6292(b)(1) are met. Once a determination is made, the Secretary may prescribe test procedures to measure the energy efficiency or energy use of such product. (42 U.S.C. 6293(a)) Furthermore, once a product is determined to be a covered product, the Secretary may establish standards for such product, subject to the provisions in 42 U.S.C. 6295(o) and (p), provided that DOE determines that the additional criteria at 42 U.S.C. 6295(*l*) have been met. Specifically, 42 U.S.C. 6295(*l*) requires the Secretary to determine that: the average household energy use of the products has exceeded 150 kWh per household for a 12-month period; the aggregate 12-month energy use of the products has exceeded 4200 gigawatt-hours; substantial improvement in energy efficiency of products of such type is technologically feasible; and application of a labeling rule under 42 U.S.C. 6294 is unlikely to be sufficient to induce manufacturers to produce, and consumers and other persons to purchase, covered products of such type (or class) that achieve the maximum energy efficiency that is technologically feasible and economically justified. (42 U.S.C. 6295(l)(1))

II. Current Rulemaking Process

DOE has not previously conducted a rulemaking for air cleaners. DOE published in the *Federal Register* a notification of proposed determination of coverage ("NOPD") on September

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quarters that are occupied by an institutional group of 10 or more unrelated persons, such as a nursing home, military barracks, halfway house, college dormitory, fraternity or sorority house, convent, shelter, jail or correctional institution. Housing unit means a house, an apartment, a group of rooms, or a single room occupied as separate living quarters, but does not include group quarters. Separate living quarters means living quarters: to which the occupants have access either: directly from outside of the building, or through a common hall that is accessible to other living quarters and that does not go through someone else's living quarters, and occupied by one or more persons who live and eat separately from occupant(s) of other living quarters, if any, in the same building. 10 CFR 430.2.

10 CFR 430.2.

16, 2021 ("September 2021 NOPD"), in which it determined tentatively that air cleaners satisfy the provisions of 42 U.S.C. 6292(b)(1). 86 FR 51629.

DOE received comments in response to the September 2021 NOPD from the interested parties listed in Table II.1.

Table II.1 Written Comments Received in Response to September 2021 NOPD

Commenter(s)	Abbreviation	Docket No.	Commenter Type
Air-Conditioning, Heating, and Refrigeration Institute ("AHRI")	AHRI	9	Trade Association
The Appliance Standards Awareness Project ("ASAP"), the American Council for an Energy-Efficient Economy ("ACEEE"), Consumer Federation of America ("CFA"), and the Natural Resources Defense Council ("NRDC")	ASAP *et al.*	7	Efficiency Organizations
The Association of Home Appliance Manufacturers ("AHAM")	AHAM	13	Trade Association
ACEEE, ASAP, AHAM, CFA, and NRDC	Joint Commenters	12	Efficiency Organizations and Trade Association
Carrier Corporation	Carrier	6	Manufacturer
Corn	Corn	4	Individual
Daikin U.S. Corporation	Daikin	10	Manufacturer
Brassell Estate	Brassell Estate	3	Individual
Kodiak Steel Homes	KSH	2	Builder
New York State Energy Research and Development Authority	NYSERDA	5	State Agency
Northwest Energy Efficiency Alliance	NEEA	11	Efficiency Organization
Pacific Gas and Electric Company, San Diego Gas and Electric, and Southern California Edison; collectively, the California Investor-Owned Utilities	CA IOUs	8	Utility

A parenthetical reference at the end of a comment quotation or paraphrase provides the location of the item in the public record.[5]

After considering public comments on the September 2021 NOPD, DOE is issuing this final determination of coverage for this product. DOE is not prescribing test procedures or energy conservation standards as part of this determination.

After publishing the September 2021 NOPD, DOE initiated rulemaking activities to consider potential test procedure and energy conservation standards for consumer air cleaners by publishing a request for information ("RFI") on January 25, 2022 ("January 2022 RFI"). 87 FR 3207.[6] Through the January 2022 RFI, DOE sought data and information regarding development and evaluation of a new test procedure that would be reasonably designed to produce test results, which reflect energy use during a representative average use cycle for the product without being unduly burdensome to conduct. Additionally, the January 2022 RFI solicited information regarding the development and evaluation of potential new energy conservation standards for air cleaners, and whether such standards would result in significant energy savings, be technologically feasible and economically justified.

In response to the January 2022 RFI, DOE received certain comments pertaining to the scope of coverage and definition for air cleaners, which are discussed in the following sections. All other comments in response to the January 2022 RFI pertaining to the test procedure or

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[5] The parenthetical reference provides a reference for information located in the docket of DOE's rulemaking to determine coverage for air cleaners. (Docket No. EERE-2021-BT-DET-0022, which is maintained at *www.regulations.gov*). The references are arranged as follows: (commenter name, comment docket ID number, page of that document). When referring to comments received on another docket, the docket number is included prior to the commenter's name.

[6] In response to requests from stakeholders, DOE re-opened the comment period to the January 2022 RFI for an additional 40 days. 87 FR 11326 (Mar. 1, 2022).

standards rulemaking will be addressed in the subsequent rulemakings, should DOE pursue such rulemakings.

III. General Discussion

Air cleaners are consumer products designed to remove particulate matter and other contaminants from the air to improve indoor air quality. DOE's analysis indicates that air cleaners meet the statutory requirements under 42 U.S.C. 6292(b)(1), and therefore issues this final determination that air cleaners are a covered product. DOE will consider test procedure and energy conservation standards rulemakings for air cleaners in the future. DOE will determine if air cleaners satisfy the provisions of 42 U.S.C. 6295(*l*)(1) during the course of the energy conservation standards rulemaking.

While DOE received comments on specific topics in response to the September 2021 NOPD, discussed in sections III.A and III.B of this document, commenters also provided general feedback on the proposed determination of coverage for air cleaners.

The Joint Commenters supported DOE's proposal to include room air cleaners as a covered product and stated that they are negotiating potential test procedures and energy conservation standards for air cleaners. (Joint Commenters, No. 12 at p. 1) In additional comments filed separately, AHAM supported DOE's efforts to establish air cleaners as a covered product. (AHAM, No. 13 at p. 1) AHAM also commented that it is working on an updated standard to measure energy consumption for room air cleaners, AHAM AC-7-2021 and requested DOE to incorporate this standard by reference, once it is published, as the DOE test procedure. (AHAM, No. 13 at pp. 1-2)

The CA IOUs also supported DOE's proposal to make air cleaners a covered consumer product. (CA IOUs, No. 8 at p. 1) The CA IOUs cited the U.S. Environmental Protection Agency ("EPA") and various State Technical Reference Manuals in commenting that the estimated lifetime of air cleaners is 9 years, and therefore, urged DOE to regulate air cleaners as soon as possible. (CA IOUs, No. 8 at p. 2) The CA IOUs encouraged DOE to work towards ensuring that air cleaners are not only efficient, but also meet consumer expectations for effectiveness, and that the information provided to consumers is clear. (CA IOUs, No. 8 at p. 5)

NYSERDA estimated that a potential standard for air cleaners would yield 0.19 million metric tons of carbon dioxide emissions reductions and result in $290 million of net present value for the state of New York. Given the significant emissions reductions, net present value, anticipated continued growth in sales, and important health benefits delivered by air cleaners, NYSERDA supported the coverage of air cleaners and encouraged DOE to move quickly to establish standards and test procedures. NYSERDA further indicated that there are many high efficiency, low-priced air cleaners on the market, which would make air cleaners a strong candidate for DOE standards. NYSERDA commented that other states have started establishing standards for air cleaners and a federal standard, established by DOE, is thus important. (NYSERDA, No. 5 at pp. 2–3)

AHRI commented that DOE should account for potential conflicts that could be caused by multiple regulations, and enumerated the various performance-based requirements and state regulations applicable to air filters that remove particulates from the air stream in ducted forced-air heating or cooling systems in residential and commercial buildings. According to AHRI, energy efficiency is important, but the main purpose of air cleaners it to provide clean air, which should be the primary focus for product design. (AHRI, No. 9 at pp. 1–3) Carrier generally supported the initiative to establish air cleaners as a covered product, but stated that the proposed

definition and scope of coverage is broad and would include air cleaners that may not meet EPCA requirements. (Carrier, No. 6 at p. 1)

Corn and the Brassell Estate supported the air cleaners coverage determination with Corn stating that they are vital especially given Covid-19. (Corn, No. 4 at p. 1; Brassell Estate, No. 3 at p. 1)

DOE notes that many stakeholders commented in support of DOE's efforts to establish air cleaners as a covered consumer product. In this notice, DOE is classifying air cleaners as a covered product.

A. Scope of Coverage

Air cleaners are products designed to remove particulate matter and other contaminants from the air to improve indoor air quality. A wide range of consumer air cleaner products are available on the market, including tabletop units, units designed for single rooms or multiple rooms, and whole-home units integrated into a central heating and cooling system. Air cleaners employ a wide variety of technologies to achieve the primary function of removing particulate matter and other contaminants from the air, and may also include other secondary functions that supplement or enhance the primary function such as providing air circulation, humidification or dehumidification, and other forms of indoor air quality improvement.

EPCA does not define air cleaners. In the September 2021 NOPD, DOE proposed the following definition to describe the scope of "air cleaners" as a covered product:

An air cleaner is a consumer product that:

(1) Is a self-contained, mechanically encased assembly;

(2) Is powered by single-phase electric current;

(3) Removes, destroys, or deactivates particulates and microorganisms from the air;

(4) Excludes products that destroy or deactivate particulates and microorganisms solely by means of ultraviolet light without a fan for air circulation; and

(5) Excludes central air conditioners, room air conditioners, portable air conditioners, dehumidifiers, and furnaces as defined in 10 CFR 430.2. 86 FR 51629, 51632.

DOE developed the definition proposed in the September 2021 NOPD based on reviewing definitions specified in the industry standard ANSI/AHAM AC-1-2020, *Portable Household Electric Room Air Cleaners* ("ANSI/AHAM AC-1-2020"), the definitions on the ENERGY STAR website and the ENERGY STAR Product Specification for Room Air Cleaners, Version 2.0, Rev. April – 2021 ("ENERGY STAR V. 2.0 Specification"), and a wide variety of air cleaning consumer products currently on the market. 86 FR 51629, 51632.

In response to the September 2021 NOPD, the Joint Commenters stated that they generally agreed with DOE's proposed definition and provided some suggested revisions. Specifically, the Joint Commenters suggested the second criterion in the proposed definition to be clarified to state that it is a unit that includes "an electric cord" to differentiate from whole-home units. With regard to the third criterion, the Joint Commenters suggested edits to note that an air cleaner may also remove pollutants such as volatile organic compounds ("VOCs") and/or microorganisms from the air, in addition to particulates, to include all types of air cleaner functionality. With regard to the fourth criterion, the Joint Commenters suggested replacing "destroy or deactivate particulates and microorganisms" with "operate" to remove language that commenters stated was not necessary to repeat. (Joint Commenters, No. 12 at p. 2)

In response to the January 2022 RFI, the Joint Commenters further commented on DOE's proposed definition. The Joint Commenters suggested a definition of "consumer room air cleaner" as follows: Consumer room air cleaner means a consumer product which (1) includes conventional room air cleaners and miscellaneous room air cleaners; (2) is a self-contained, mechanically encased assembly; (3) is powered by single-phase electric current; and (4) excludes central air conditioners, room air conditioners, portable air conditioners, dehumidifiers, and furnaces, as defined in 10 CFR 430.2. (EERE-2021-BT-STD-0035, Joint Commenters, No. 8 at p. 2) The Joint Commenters further suggested definitions for the terms "conventional room air cleaner" and "miscellaneous room air cleaner" as follows: Conventional room air cleaner means a consumer room air cleaner that (1) is an electric corded unit; (2) operates with a fan for air circulation; and (3) removes, destroys, and/or deactivates particulates and may also remove pollutants, such as VOCs and microorganisms, from the air. Miscellaneous room air cleaner means a consumer room air cleaner that (1) operates without a fan for air circulation; and (2) removes, destroys, and/or deactivates particulates and may also remove pollutants, such as VOCs and microorganisms, from the air. (*Id*.) The Joint Commenters stated that their recommended definition is restricted to consumer room air cleaners because that corresponds to the scope of products subject to their ongoing negotiations. (*Id.*) In particular, the Joint Commenters suggested clarifying that "conventional room air cleaners" have electric cords, which would differentiate portable air cleaners from whole-home units. (*Id.*)

The Joint Commenters further stated that they no longer agree with DOE's proposal to exclude from coverage products that use only an ultraviolet ("UV") light and do not have a fan for air circulation, stating that these products are already beginning to appear on the market and are being marketed as room air cleaners. (*Id*. at p. 3) The Joint Commenters stated that products that use UV light for air cleaning purposes should be addressed as air cleaners, not illumination

devices, and that it is important for them to be included in the scope of coverage such that a test procedure and standards can be developed at some point. (*Id*.)

Additionally, the Joint Commenters stated that they no longer recommend that DOE include the requirement for a cord for all air cleaners because they expect that future products might be powered via a terminal box, socket, or other type of direct connection. (*Id.*) The Joint Commenters stated that such possible products would include UV bulbs represented to be air cleaners, but may not be connected via a cord. (*Id*.)

Daikin suggested the following additions to the air cleaners definition: specifying that the air cleaner be powered directly from 120V supplied by a plug; has a maximum airflow rate of 400 cubic feet per minute ("CFM"); is marketed for residential use with the primary function of removing, destroying, or deactivating particulates and microorganisms from the air; and excludes products without a fan, products that provide incidental air cleaning, products powered by external transformers, or ancillary products used in conjunction with, or inside ducts of, heating, ventilation, and air conditioning ("HVAC") equipment. (Daikin, No. 10 at pp. 2–3) Carrier provided similar suggestions including: specifying the air cleaner must be rated at 120V; designed to supply nominal airflow rate less than or equal to 400 CFM; and marketed for the primary functions of removing, destroying, or deactivating particulates and microorganisms from the air in a residential occupancy. (Carrier, No. 6 at p. 2) Daikin additionally commented that since clean air delivery rate ("CADR"), which is the metric that is calculated in ANSI/AHAM AC-1-2020, is a performance metric that is determined via testing, the scope should be defined based on the nominal airflow rate of the unit. Daikin commented that air cleaners in a residential space with existing HVAC equipment would rarely require high CFM. According to Daikin, air cleaners with airflow rates of 400 CFM and above would be considered excessive and unnecessary for residential spaces. (Daikin, No. 10 at p. 2) Similarly, Carrier also commented

that it did not support including large portable air cleaners with nominal airflow rates higher than 400 CFM typically used in commercial applications, since these would not meet the airflow limits of ANSI/AHAM AC-1-2020. (Carrier, No. 6 at p. 2) Carrier commented that it would be reasonable to include air cleaners that are currently within the scope of ANSI/AHAM AC-1-2020 and the ENERGY STAR V. 2.0 Specification (*i.e.*, those with airflow rates equal to or less than 400 CFM) in the definition of a covered air cleaner, but asserted that including any other air cleaner products within the scope would not meet the requirements of 42 U.S.C. 6292(b)(1)(B) and therefore it would not be appropriate to include such products in the air cleaner scope of coverage. (Carrier, No. 6 at p. 3)

In a comment in response to the January 2022 RFI, Daikin reiterated its concerns about products that may be included within DOE's proposed definition, and urged DOE to review its recommendations in Daikin's September 2021 NOPD comments. (Daikin, EERE-2021-BT-STD-0035, No. 12 at p. 2)

AHRI suggested several revisions to the definitions DOE proposed in the September 2021 NOPD and reiterated these comments in response to the January 2022 RFI. Specifically, AHRI suggested revising the second criterion in DOE's proposed definition to state that an air cleaner is directly powered by 120 volt ("V"), single-phase electric current supplied by a National Electrical Manufacturers Association ("NEMA") 1-15P or 5-15P plug. AHRI additionally recommended including the following items in DOE's proposed definition of an air cleaner: is designed to supply airflow less than or equal to 400 CFM; is marketed for the primary functions of removing, destroying, or deactivating particulates and microorganisms from the air in a residential occupancy; excludes products that destroy or deactivate particulates and microorganisms solely by means of UV light or electrostatic air filters with or without a fan for air circulation; excludes products without a fan; and, excludes incidental air cleaning products,

which AHRI defined as a consumer product that would meet the definition of an air cleaner, but which provides an additional function, not related to air purification, within the same housing, such as a vacuum cleaner, fresh air ventilators, oven hood, refrigerator, or desiccant dehumidifier, and whose air purification function is incidental to its other functions. (AHRI, No. 9 at pp. 4–5; EERE-2021-BT-STD-0035, AHRI, No. 15 at p. 5) In response to the January 2022 RFI, Madison Indoor Air Quality ("MIAQ") provided the same suggested modifications to the proposed definitions in the September 2021 NOPD as suggested by AHRI in its comments. (EERE-2021-BT-STD-0035, MIAQ, No. 5 at pp. 4-5) AHRI and MIAQ asserted that the modifications it provided to the air cleaners definition would ensure that the scope of coverage only included portable, plug-in air cleaners. AHRI commented that limiting the voltage to "directly powered by 120V"" would ensure that products powered by single-phase 240V electrical supply or through an external transformer would be excluded. AHRI further commented that combination products, as defined in the ENERGY STAR V. 2.0 Specification, and defined as incidental products in AHRI's comments, should also be excluded. (AHRI, No. 9 at pp. 5–6; EERE-2021-BT-STD-0035, AHRI, No. 15 at pp. 5-6; EERE-2021-BT-STD-0035, MIAQ, No. 5 at pp. 4-5)

AHRI commented that the DOE proposed definition would include products that are not presently included in ANSI/AHAM AC-1-2020 or covered by the ENERGY STAR V. 2.0 Specification. AHRI commented that the definition it suggested would ensure non-portable air cleaners, such as those that are mounted on walls and ceilings, or that provide whole-home cleaning in conjunction with central heating or air conditioning systems, would not be included in the scope of coverage. Further, AHRI explained that justifying a scope expansion would require robust analysis that would involve significant time and resources. (AHRI, No. 9 at p. 4; EERE-2021-BT-STD-0035, AHRI, No. 15 at pp. 3-4) AHRI further commented that products with airflow rates over 400 CFM should be excluded from the scope of coverage because they

are not currently covered by the ENERGY STAR V. 2.0 Specification or ANSI/AHAM AC-1-2020 and cannot be tested according to the ANSI/AHAM AC-1-2020 standard. (AHRI, No. 9 at p. 4; EERE-2021-BT-STD-0035, AHRI, No. 15 at p. 4)

In response to the January 2022 RFI, MIAQ provided similar suggestions as AHRI for products that should be excluded from the air cleaner scope of coverage. MIAQ disagreed with the inclusion of non-portable air cleaners, such as those mounted on walls and ceilings, or that provide whole-home air cleaning in conjunction with central heating or air conditioning systems. (EERE-2021-BT STD-0035, MIAQ, No. 5 at p. 3) Further, MIAQ commented that the ANSI/AHAM AC-1-2020 standard does not adequately cover non-portable products, and products with airflow rates over 450 CFM are not covered by the ENERGY STAR Program. (EERE-2021-BT STD-0035, MIAQ, No. 5 at p. 3)

In response to the January 2022 RFI, Synexis LLC ("Synexis") commented that the proposed DOE definition for consumer air cleaners does not account for all of the various technologies that exist in this space and could benefit from further clarification. (EERE-2021-BT-STD-0035, Synexis, No. 14 at p. 1) Synexis agreed with the first and second criteria in the proposed definition, but stated that the third and fourth criteria could be further clarified by providing specific information about air cleaning mechanisms and claims associated with these devices (*e.g.,* devices that utilize high efficiency particulate air ("HEPA"), charcoal, carbon, or minimum efficiency reporting value ("MERV") filters or devices that utilize photocatalytic oxidation ("PCO"), bipolar ionization, or other similar technologies, *etc.*) that would be in scope. Regarding the fifth criterion, Synexis stated that portable air conditioners that incorporate filtration mechanisms with any supplemental claims related to cleaning the air (*i.e.*, in addition to cooling) should not be excluded from the definition of consumer air cleaners. (EERE-2021-BT-STD-0035, Synexis, No. 14 at pp. 1–2)

Blueair commented in response to the January 2022 RFI that it supports the definition proposed in the September 2021 NOPD (EERE-2021-BT-STD-0035, Blueair, No. 10 at p. 2) Lennox International Inc. ("Lennox") also commented in response to the January 2022 RFI supporting the exclusion of UV lights from the definition, commenting that these products are already subject to "lamp" regulations. (EERE-2021-BT-STD-0035, Lennox, No. 7 at p. 2)

In response to the January 2022 RFI, NEEA commented that it supports DOE's proposal to use a broad definition for room air cleaners that includes both portable and mounted units, but that it also supports excluding other products that fit into alternate DOE product categories, namely those that are classified as "lamps primarily designed to produce radiation in the ultraviolet region of the spectrum." (NEEA, EERE-2021-BT-STD-0035, No. 13 at p. 3) The CA IOUs recommended that DOE change the third criterion to state "removes, destroys, and/or deactivates particulates, microorganisms, and/or pollutants from the air" to encompass technologies that do a combination of these actions. The CA IOUs also suggested that the fourth criterion should be edited such that it is as comprehensive as the third criterion. (CA IOUs, No. 8 at p. 3) The CA IOUs commented that the definition of air cleaners should encompass all air cleaner technologies, including UV light, heat, PCO, and photoelectrochemical oxidation ("PECO"), beyond the fan, filters, electrostatic plates, and ion generators that are referenced in ANSI/AHAM AC-1-2020. (CA IOUs, No. 8 at p. 3)

In response to the January 2022 RFI, the CA IOUs reiterated its support for DOE's proposal in the September 2021 NOPD to cover a more comprehensive range of the consumer market for air cleaning and purification, rather than just portable air cleaners. The CA IOUs recommended that mounted and whole-home/in-duct units as well as UV lamps marketed as air cleaners be within the scope of coverage. (EERE-2021-BT-STD-0035, CA IOUs, No. 9 at pp. 9-10)

Regarding the clause "single-phase electric current" in DOE's proposed definition in the September 2021 NOPD DOE notes that this phrase was intended to include air cleaners that operate at both 120V and 240V. DOE has identified products that are designed to operate via both 120V and 240V supply power, but otherwise meet the criteria of the proposed definition of "air cleaner." To remove any potential misunderstanding that the definition of "air cleaner" is limited to products that are powered via 120V supply power, in this final determination, DOE is adopting a definition that specifies, in part, that air cleaners are units that are "electrically powered" so as not to limit the definition to any particular electrical power source.

Similarly, DOE is not limiting the scope of coverage to a plug-in or corded unit. In-duct/whole-home air cleaners are of a type that are distributed in commerce for residential use, but may not be "plug-in" or "corded." Additionally, as the Joint Commenters noted in their comments in response to the January 2022 RFI, products could be powered via other types of direct connections that are not plug-in or corded. (EERE-2021-BT-STD-0035, Joint Commenters, No. 8 at p. 3) As discussed in the September 2021 NOPD, ANSI/AHAM AC-1-2020 includes air cleaners that include appropriate wall mounting brackets or specifically designated instructions to mount the air cleaner integrally to the wall, *i.e.*, "non-portable" air cleaners. 86 FR 51629, 51632. DOE recognizes that while these products may require additional considerations pertaining to the installation instructions as "portable" air cleaners, such air cleaners may not be "plug-in" or "corded," but may be of a type distributed into commerce for personal use.

Further, based on an analysis of products available on the market, DOE notes that the pollutants that may be removed by air cleaners are not limited to particulate matter and microorganisms. Accordingly, DOE is proposing to include VOCs in the list of pollutants. DOE is additionally clarifying that any air cleaner that *contains means to* remove, destroy, or

deactivate pollutants would be considered an air cleaner. DOE is revising the definition proposed in the September 2021 NOPD to state that an air cleaner "contains means to remove, destroy, or deactivate particulates, VOCs, and/or microorganisms from the air."

Additionally, DOE is not limiting the definition based on an airflow threshold (*e.g.,* less than or equal to 400 CFM). In-duct/whole-home air cleaners have a range of airflow specifications and such specifications may not adequately distinguish between air cleaners and air cleaning products that are commercial and industrial equipment.[7] Similarly, DOE is not including additional information about the types of filters or technologies utilized by air cleaners, since the definition specified in this notice is based on the functionality provided by the unit and would include all types of filters and technology types.

Regarding products that operate only on UV light (*e.g.*, without a fan for air circulation), as discussed in the September 2021 NOPD, the energy-consuming component of such products would be a fluorescent lamp or light-emitting diode that emits light in the UV portion of the electromagnetic spectrum. 86 FR 51629, 51632. Accordingly, DOE would classify these products as a type of lamp under EPCA (See the definition of "lamps primarily designed to produce radiation in the ultraviolet region of the spectrum" and "light-emitting diode or LED" in 10 CFR 430.2). *Id.* DOE did not receive any comments regarding how such products would be distinguished from the currently applicable definitions.

Regarding products that provide functionality in addition to air purification within the same housing, DOE proposed to exclude certain products that provide air cleaning functionality in addition to other functionality, such as central air conditioners, room air conditioners, portable

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[7] AprilAire Electronic Air Purifier - Model 5000 is an example of such a whole-home air purifier. *https://www.aprilaire.com/whole-house-products/air-purifiers/model-5000.*

air conditioners, dehumidifiers, and furnaces, in the September 2021 NOPD. *Id.* DOE is retaining these exclusions in the adopted definition of "air cleaner." DOE is also modifying the definition as proposed to explicitly provide that "air cleaners" means a product for improving indoor air quality to clarify that the term does not include products that may provide some air cleaning as an ancillary function (*e.g.*, a vacuum cleaner).

In response to the January 2022 RFI, Lennox supported the exclusion of air cleaners associated with central air conditioning and furnace systems from the scope of a DOE consumer air cleaner efficiency standard, asserting that those products are already covered by DOE standards. Additionally, Lennox commented that the ANSI/AHAM AC-1-2020 standard and ENERGY STAR V. 2.0 Specification are only applicable to portable units, so air cleaners associated with central air conditioning and furnace systems would not be appropriate for this rulemaking. (EERE-2021-BT-STD-0035, Lennox, No. 7 at pp. 1–2) AHRI also commented that there are no test procedures to measure the energy use of in-duct air cleaners with only air cleaning components without a fan and as such, these products should be excluded from the coverage determination. AHRI further stated that energy conservation standards for portable and non-portable air cleaners, or "incidental air cleaners" (as defined by AHRI), would be different and it would not be appropriate to include these products in the same regulation. (AHRI, No. 9 at p. 6)

Additionally, AHRI commented that DOE should exclude commercial products, which AHRI described as products typically used in hospitals, airports, commercial buildings, and laboratories and have high airflow and capacity not meant for residential use. AHRI stated that air cleaners are not on the statutory list of commercial/industrial equipment permissible for regulation and noted that commercial products typically cannot be purchased by consumers, for consumer applications. AHRI noted that commercial air purifiers cannot be purchased for

personal use and installation in homes and that these products are sold through business-to-business sales channels. Finally, AHRI commented that DOE has not conducted the appropriate analysis to include commercial air cleaners and that adequate test procedures do not exist. (AHRI, No. 9 at pp. 6–7; EERE-2021-BT-STD-0035, AHRI, No. 15 at pp. 4-5)

In response to the January 2022 RFI, MIAQ also stated that commercial products should be excluded since air cleaners are not on the statutory list of commercial equipment permissible for regulation, the determination of energy savings would be substantially different for commercial equipment, consumer and commercial equipment are fundamentally different and have different statutory requirements, and commercial products are not available to consumers for personal use. (EERE-2021-BT STD-0035, MIAQ, No. 5 at pp. 3–4)

Daikin commented that the definition of an air cleaner as proposed in the September 2021 NOPD is broad and could encapsulate unintended products. Daikin asserted that DOE did not consider whether a product is distributed in commerce for residential or commercial use, but whether it is of a type of product distributed in commerce for residential use. Daikin stated that air cleaners marketed and sold solely for commercial applications are typically not sold through retail stores, but rather via a contractor, dealer, or distributor, and such products should be excluded from the definition of an air cleaner. (Daikin, No. 10 at pp. 1-2) Carrier commented that it did not support including whole-home air cleaners in conjunction with central heating/air conditioning systems in the definition and scope of coverage. (Carrier, No. 6 at p. 1)

Trane Technologies commented in response to the January 2022 RFI that permanently mounted HVAC systems in buildings are already substantially regulated through building codes, product standards, and DOE regulations, and that no further standards for these product types

should be considered without an exhaustive and multi-stakeholder consultative process. (EERE-2021-BT-STD-0035, Trane Technologies, No. 3 at p. 3)

ASAP *et al*. supported a broad definition for air cleaners, such that it would include air cleaners such as whole-home units. (ASAP *et al.* No. 7 at p. 2) NEEA supported coverage for air cleaners, but noted that DOE's proposed definition did not specifically exclude whole home ventilation equipment. NEEA recommended clarifying the definition to apply only to products that have a primary purpose of removing, destroying, or deactivating particulates, which would exclude products with a secondary function of improved air quality through increased ventilation, such as energy recovery ventilation systems. NEEA stated that expanding the scope to include non-portable air cleaners may require future coordination with AHAM and ENERGY STAR to align certification requirements and definitions. (NEEA, No. 11 at p. 2)

The purpose of the proposed definition, and the modified definition adopted in this final determination, is to identify the scope of certain consumer products (*i.e.*, air cleaning products) that are covered products. In identifying whether a product is a consumer product for consideration as a covered product, DOE evaluates whether such product: in operation consumes, or is designed to consume, energy; and, to any significant extent, is distributed in commerce for personal use or consumption by individuals; without regard to whether such article of such type is in fact distributed in commerce for personal use or consumption by an individual. (42 U.S.C. 6291(1))

DOE is also not including marketing considerations as part of the definition. In determining whether an air cleaning product were a consumer product, and therefore potentially a covered product, DOE would evaluate whether it is *of a type* of product distributed in commerce for residential use. (42 U.S.C. 6291(1); *emphasis added*)

AHRI also commented that the ANSI/AHAM AC-1-2020 standard is not the appropriate test procedure for other products potentially included in the scope of DOE's proposed definition, such as oven hoods or fresh air ventilators. (AHRI, No. 9 at p. 4; EERE-2021-BT-STD-0035, AHRI, No. 15 at p. 4)

Daikin commented that DOE's proposed definition covers a broad range of products, many of which cannot be tested using ANSI/AHAM AC-1-2020 or the ENERGY STAR V. 2.0 Specification. (Daikin, No. 10 at p. 2)

In response to the January 2022 RFI, MIAQ stated that the ANSI/AHAM AC-1-2020 standard is not suitable for very large or very small products due to the fixed room size of the test chamber, and is not appropriate for other products potentially included in the proposed definition, such as oven hoods or fresh air ventilators. Since all of these products would require unique test methods, MIAQ asserted that they should be excluded from the air cleaner scope of coverage. (EERE-2021-BT STD-0035, MIAQ, No. 5 at p. 3)

KSH referenced the ENERGY STAR V. 2.0 Specification's definition for a plug-in type air cleaner and commented that the test method for plug-in type air cleaners should specify that the unit should be plugged in to the outlet such that the unused socket remains accessible. (KSH, No. 2 at p. 1)

The CA IOUs commented that whole-home air purification solutions raise issues pertaining to the applicability of test procedures based on the installed application, and provided multiple examples in which according to the CA IOUs the energy use of such air purification systems is not addressed in DOE's current test procedures for consumer products. The CA IOUs

also provided references to existing test procedures and building standards provisions[8] that may be useful to DOE in its efforts to establish appropriate test procedures for such whole-home air purification systems. (EERE-2021-BT-STD-0035, CA IOUs, No. 9 at p. 11)

AHRI additionally commented that it could not provide information on technology options to improve the efficiency of air cleaners until the scope of coverage and associate definition were amended to exclude non-portable products. (AHRI, No. 9 at p. 7)

Daikin commented that it believed there may be challenges on further improving the energy efficiency of air cleaners due to the lack of potential technology options. Daikin commented that most air cleaners are free-air discharge cleaners, which do not have significant potential for energy savings. Additionally, Daikin commented that changes in motors and impellers, or modifications to reduce energy consumption in standby or off mode would not provide significant savings. Daikin commented that reducing energy consumption by reducing the pressure drop due to filters would impact the performance of air cleaners. (Daikin, No. 10 at p. 3) Daikin also stated that some products such as humidifiers or dehumidifiers may also filter/clean air, and the mechanism to generate airflow is the same and the energy consumption cannot be isolated to air cleaning only. (Daikin, No. 10 at p. 2) Carrier commented that it did not have additional information on efficiency-related technology options for air cleaners. (Carrier, No. 6 at p. 3)

NEEA recommended that air cleaner product classes should be separated by CADR/W and that standards should be established as a function of capacity. NEEA further recommended that DOE consider overall unit function when establishing standards because air cleaners that

[8] As an example, the CA IOUs referenced ANSI/ASHRAE Standard 62.1-2019 which prescribes certain requirements by reference to the UL 2998 standard regarding ozone and UV generation.

filter smaller particles often use more energy. (NEEA, No. 11 at p. 2-) NEEA also commented that efficient motors, fans, and controls should be investigated as design options for energy savings because the energy consumption of air cleaners is likely to increase in the coming years due to an increase in consumer interest for these products. (NEEA, No. 11 at p. 3) NEEA recommended that DOE include technology options such as UV light, heat, PCO, and PECO in its assessment of applicable product categories. (NEEA, No. 11 at p. 3)

NEEA also supported the development of efficiency standards and test procedures for whole-home ventilation systems, but stated that metrics specific to such systems should be established through a separate rulemaking instead of combining these equipment types with air cleaners. (NEEA, No. 11 at p. 2) NEEA further commented that DOE should consider including a maximum allowable standby or partial on-mode power limit in any future energy conservation standard because the hours of operation as well as the functionality offered in standby mode (*e.g.,* accent lights, heat, *etc.*) may vary widely. NEEA commented that DOE should consider efficient motors, fans, and controls as technology options and noted that it may be able to provide additional data sources through its Retail Products Platform program. (NEEA, No. 11 at p. 3)

The CA IOUs recommended that DOE should take into account how air cleaners provide different services and applications for a variety of consumer needs as the standard-setting process continues. They also commented that the technology options for air cleaners that use fans include multiple speed motors and sensors that automatically adjust fan speed. The CA IOUs also recommended an investigation into the sensitivity of sensors and controls, the number of fan speeds available, and the degree to which they can reduce energy consumption while maintaining performance. The CA IOUs also commented to investigate energy consumption in standby mode for these products. (CA IOUs, No. 8 at pp. 3-4)

DOE welcomes comments provided by stakeholders regarding applicable test procedures and potential technology options, product classes, and efficiency levels. However, the air cleaner definition adopted in this final determination establishes the coverage of "air cleaners" for the purpose of Part A of EPCA. The scope of coverage is separate from a determination of the applicability of test procedures or energy conservation standards, should DOE establish test procedures and energy conservation standards. The scope of any test procedure or energy conservation standards would be considered in these respective rulemakings to the extent DOE pursues such rulemakings. As such, DOE is not limiting the scope of "air cleaner" as a covered product based on the potential availability of an industry test standard, or other test procedure or standards related issues.

Daikin commented that a labeling rule under 42 U.S.C. 6295(l)(1) could be a good driving factor for manufacturers and consumers to manufacture and consume higher efficiency products. (Daikin, No. 10 at pp. 3-4) DOE notes that the requirements under 42 U.S.C. 6295(l) are only applicable once a coverage determination has occurred and if and when DOE considers establishing standards.

The CA IOUs stated that they are engaged in discussions with several stakeholders as part of a working group to develop further recommendations regarding definitions, scope, test procedures, and efficiency standards. The CA IOUs further commented that the working group is in alignment with DOE's proposal to exclude products that offer air purification as a secondary function, but for which the main functionality, and related energy consumption, is already regulated as a covered product, such as those for central air conditioners, dehumidifiers, *etc.* The CA IOUs suggested DOE consider recommendations that the working group develops. (CA IOUs, No. 8 at p. 3) DOE welcomes comments and recommendations from the working group

and will consider developments made by the working group on matters concerning definitions, scope, test procedures, and efficiency standards during the appropriate stage of each rulemaking.

In summary, based on the preceding discussion, DOE is defining "air cleaner" as a product for improving indoor air quality, other than a central air conditioner, room air conditioner, portable air conditioner, dehumidifier, or furnace, that is an electrically-powered, self-contained, mechanically encased assembly that contains means to remove, destroy, or deactivate particulates, VOCs, and/or microorganisms from the air. It excludes products that operate solely by means of ultraviolet light without a fan for air circulation.

B. Evaluation of Air Cleaners as a Covered Product Subject to Energy Conservation Standards

The following sections describe DOE's evaluation of whether air cleaners fulfill the criteria for being added as a covered product pursuant to 42 U.S.C. 6292(b)(1). As stated, DOE may classify a consumer product as a covered product if:

(1) Classifying products of such type as covered products is necessary or appropriate to carry out the purposes of EPCA; and

(2) The average annual per-household energy use by products of such type is likely to exceed 100 kWh (or its Btu equivalent) per year.

1. Coverage Necessary or Appropriate to Carry Out Purposes of EPCA

DOE has determined that coverage of air cleaners is necessary or appropriate to carry out the purposes of EPCA, which include:

(1) To conserve energy supplies through energy conservation programs, and, where necessary, the regulation of certain energy uses; and

(2) To provide for improved energy efficiency of motor vehicles, major appliances, and certain other consumer products. (42 U.S.C. 6201(4) and (5))

In the September 2021 NOPD, DOE cited data presented by EPA for the ENERGY STAR Air Cleaners Program that estimated that overall shipments of room air cleaners (a subset of the products covered by the definition of "air cleaner" adopted in this final determination) were 5.17 million units. 86 FR 51629, 51633. DOE also referenced the energy consumption ratings contained in the ENERGY STAR database of certified room air cleaners,[9] which demonstrated significant variation in the total energy consumption among different models,[10] suggesting that technologies exist to reduce the energy consumption of air cleaners. *Id.* DOE requested data and information regarding current annual shipments of air cleaners and the installed base of air cleaners. *Id*.

AHRI agreed with DOE's estimates of shipments data, based on EPA and AHAM data. (AHRI, No. 9 at p. 7) ASAP *et al.* commented that the most recent ENERGY STAR data for 2020 reported 6.5 million shipments of ENERGY STAR-certified units,[11] total shipments are likely significantly greater, and product demand in the residential sector is projected to grow at a CAGR of 6.2 percent through 2028.[12] Furthermore, ASAP *et al.* cited ENERGY STAR data to assert that air cleaners represent a large potential for energy savings. In particular, ASAP *et al*.

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[9] The ENERGY STAR Product Specification defines "room air cleaner" as "an electric appliance with the function of removing particulate matter from the air and which can be moved from room to room." See Eligibility Criteria Version 2.0, Rev. April 2021, available at *https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20Version%202.0%20Room%20Air%20Cleaners%20Specification_Rev%20April%202021_with%20Partner%20Commitments.pdf.*

[10] ENERGY STAR Certified Room Air Cleaners Database. Accessed June 24, 2021. Available online at *www.energystar.gov/productfinder/product/certified-room-air-cleaners/*.

[11] *www.energystar.gov/sites/default/files/asset/document/2020%20USD%20Summary%20Report_Lighting%20%20EVSE%20Update.pdf*. EPA did not report the ENERGY STAR market penetration of room air cleaners for 2020 "due to indications of dramatic changes in the market in 2020 that are inconsistent with previous market trends."

[12] *www.grandviewresearch.com/industry-analysis/us-air-purifier-market.*

stated that ENERGY STAR-certified room air cleaners are more than 25 percent more efficient than standard models and that the minimum CADR per watt ("CADR/W") rating in the current ENERGY STAR database ranged from 1.9 to 2.9 CADR/W; the most efficient models had rated values of 14.8 CADR/W. (ASAP *et al.*, No. 7 at p. 1)

ASAP *et al.* commented that the most recent ENERGY STAR unit shipment data for room air cleaners is 6.5 million shipments of ENERGY STAR-certified units, and commented that the estimated market penetration is not provided in the ENERGY STAR data. Using the most recent year in which ENERGY STAR provided market penetration data (2019), DOE approximates that roughly 40 percent of the market is at or above the ENERGY STAR level and estimates the total shipments of room air cleaners to be approximately 16 million units.

DOE has determined that the coverage of air cleaners is both necessary and appropriate to carry out the purposes of EPCA. As indicated by the ENERGY STAR and shipments data, air cleaners comprise a significant and growing sector of the consumer products market. As a coverage determination is a prerequisite to establishing standards for these products, classifying air cleaners as a covered product is necessary and appropriate to carry out EPCA's purposes to: Conserve energy supplies through energy conservation programs; and provide for improved energy efficiency of major appliances and certain other consumer products. (42 U.S.C. 6201(4) and (5))

2. Average Household Energy Use

In the September 2021 NOPD, DOE estimated the average household energy use for air cleaners, in households that use the product, using power consumption data reported in the ENERGY STAR product database.[13] 86 FR 51629, 51633. The ENERGY STAR database is the

[13] *www.energystar.gov/productfinder/product/certified-room-air-cleaners/results.*

only publicly available source, of which DOE is aware, that provides energy consumption data for air cleaners. For each model, the database lists the annual energy use in kilowatt-hours per year ("kWh/yr"), along with other relevant performance metrics, as measured according to ANSI/AHAM AC-1-2020. 86 FR 51629, 51633. In the September 2021 NOPD, DOE estimated the average annual energy consumption of air cleaners to be 299 kWh/yr among all models in the ENERGY STAR database. DOE also noted that the ENERGY STAR program estimated that standard (*i.e.*, non-ENERGY STAR qualified) consumer air cleaners operating continuously use around 550 kWh/yr.[14] DOE requested data and information regarding annual energy use estimates for air cleaners. 86 FR 51629, 51633.

The CA IOUs commented that the average household energy use from air cleaners likely exceeds the thresholds set by 42 U.S.C. 6292(b)(1) and 42 U.S.C. 6295(*l*), stating that the annual energy consumption of ENERGY STAR products currently listed is nearly 300 kWh/yr and estimating 450 kWh/yr for non-ENERGY STAR units. (CA IOUs, No. 8 at p. 2) The CA IOUs further stated that the hours of use for air cleaners would likely vary based on household needs and there was a wide range of estimates in federal and state sources. The CA IOUs asserted that, based on various sources, air cleaners may be operated between 6 and 24 hours per day.[15] (CA IOUs, No. 8 at p. 2) The CA IOUs commented that DOE should account for the variable hours of operation for air cleaners depending on consumer needs. The CA IOUs provided examples in which some air cleaners may run constantly but seasonally to counter high pollen content or wildfire smoke, while others may be used during all seasons but only during portions of the day. (CA IOUs, No. 8 at p. 54) The CA IOUs also stated that while only a minority of households

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[14] Air Purifiers (Cleaners). Accessed June 28, 2021. Available online at: *www.energystar.gov/products/air_purifiers_cleaners*.

[15] The CA IOUs commented that in a 2018 technical summary titled, *Residential Air Cleaners,* EPA stated that "air cleaning is limited to less than 25 percent of the 8,760 hours in a year", which translates to 6 hours per day.

owned air cleaners, of those owners, more than 20 percent had at least two air cleaners, based on California Residential Appliance Saturation Survey ("RASS") data. (CA IOUs No. 8 at p. 2)

AHRI commented that it was difficult to provide data and information regarding annual energy use estimates for air cleaners, particularly for products not covered by the ENERGY STAR Program, such as non-portable products (wall mounted, ceiling-mounted, and whole home units). (AHRI No. 9 at p. 7) Carrier commented that it did not have information on energy use estimates for air cleaners, and stated that it is unlikely this data exists for whole-home air cleaners and large portable air cleaners with nominal airflow above 400 CFM because there is not a standard test procedure for these products. (Carrier No. 6 at p.3) Daikin commented that it did not have information on typical operational hours of air cleaners. (Daikin No. 10 at p. 3)

AHRI urged DOE to publish its energy use analysis for the proposed determination. According to AHRI different types of air cleaners employ different technologies with distinctly different energy use patterns and hours of operation, which should be accounted for in the energy use analysis. (AHRI No. 9 at p. 6)Daikin asked if DOE's annual energy use estimate considered number of operating hours and also requested DOE to provide its methodology for the calculation of annual energy use. Daikin noted that this same methodology could be applied to non-ENERGY STAR qualified products to obtain data. (Daikin No. 10 at p.3)

In the absence of additional data, DOE is using the estimates available from the ENERGY STAR database to estimate the energy use for this final determination. The ENERGY STAR database includes products with various technologies and EPA notes in the ENERGY STAR database that it calculates the annual energy consumption based on an estimated 16 hours/day in active mode (also referred to as on mode or operating mode) and 8 hours/day in standby mode (or inactive mode). DOE has used these estimates for its energy use analysis. The

ENERGY STAR database includes a range of air cleaners with reported annual energy consumption ranging from 123 kWh/yr to 770 kWh/yr, with an average annual energy consumption of 299 kWh/yr. The average energy consumption of non-ENERGY STAR qualified models is likely higher.

Although the ENERGY STAR program covers only portable configurations of air cleaners, the similarity in fundamental design and operation (*i.e.*, a fan or other means for air circulation and a means for of removing, destroying, or deactivating contaminants from the air) of non-portable products (*e.g.*, wall-mounted, ceiling-mounted, whole-home units) indicates that non-portable air cleaners are likely to have similar or higher energy consumption as compared to portable air cleaners.

Based on this analysis, DOE determines that the average annual per-household energy use for air cleaners is likely to exceed 100 kWh/yr, satisfying the provisions of 42 U.S.C. 6292(b)(1).

IV. Final Determination

Based on the foregoing discussion, DOE concludes that including air cleaners, as defined in this final determination, as covered products is necessary and appropriate to carry out the purposes of EPCA, and the average annual per-household energy use by products of such type is likely to exceed 100 kWh/yr. Based on the information discussed in sections III.B of this final determination, DOE is classifying air cleaners as covered product.

This final determination does not establish test procedures or energy conservation standards for air cleaners. DOE will address test procedures and energy conservation standards through its normal rulemaking process.

V. Procedural Issues and Regulatory Review

A. Review Under Executive Order 12866 and 13563

Executive Order ("E.O.") 12866, "Regulatory Planning and Review," as supplemented and reaffirmed by E.O. 13563, "Improving Regulation and Regulatory Review, 76 FR 3821 (Jan. 21, 2011), requires agencies, to the extent permitted by law, to (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public. DOE emphasizes as well that E.O. 13563 requires agencies to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. In its guidance, the Office of Information and Regulatory Affairs ("OIRA") in the Office of Management and Budget ("OMB") has emphasized that such techniques may include identifying changing future compliance costs that might result from technological innovation or anticipated behavioral changes. For the reasons stated in the preamble, this proposed regulatory action is consistent with these principles.

Section 6(a) of E.O. 12866 also requires agencies to submit "significant regulatory actions" to OIRA for review. OIRA has determined that this regulatory action does not constitute a "significant regulatory action" under section 3(f) of E.O. 12866. Accordingly, this action was not submitted to OIRA for review under E.O. 12866. This determination has been determined to be not significant for purposes of E.O. 12866. As a result, OMB did not review this determination.

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq*.) requires preparation of an initial regulatory flexibility analysis ("IRFA") for any rule that by law must be proposed for public comment and a final regulatory flexibility analysis ("FRFA") for any such rule that an agency adopts as a final rule, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by E.O. 13272, "Proper Consideration of Small Entities in Agency Rulemaking," 67 FR 53461 (Aug. 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE has made its procedures and policies available on the Office of the General Counsel's website (*www.energy.gov/gc/office-general-counsel*).

DOE reviewed this determination under the provisions of the Regulatory Flexibility Act and the policies and procedures published on February 19, 2003. This determination sets no standards; it only positively determines that future standards may be warranted and should be explored in an energy conservation standards and test procedure rulemaking. Economic impacts on small entities would be considered in the context of such rulemakings. On the basis of the foregoing, DOE certifies that the coverage determination would have no significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared a FRFA

for this determination. DOE will transmit this certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the Small Business Administration for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act

This determination, which concludes that air cleaners meet the criteria for a covered product for which the Secretary may prescribe an energy conservation standard pursuant to 42 U.S.C. 6295(o) and (p), imposes no new information or record-keeping requirements. Accordingly, the OMB clearance is not required under the Paperwork Reduction Act. (44 U.S.C. 3501 *et seq*.)

D. Review Under the National Environmental Policy Act of 1969

Pursuant to the National Environmental Policy Act of 1969 ("NEPA"), DOE has analyzed this proposed action rule in accordance with NEPA and DOE's NEPA implementing regulations (10 CFR part 1021). DOE analyzed this regulation in accordance with the National Environmental Policy Act (''NEPA'') and DOE's NEPA implementing regulations (10 CFR part 1021). DOE has determined that this rule qualifies for categorical exclusion under 10 CFR part 1021, subpart D, appendix A6. This rulemaking qualifies for categorical exclusion A6 because it is a strictly procedural rulemaking and otherwise meets the requirements for application of a categorical exclusion. *See* 10 CFR 1021.410. In this final determination, DOE positively determines that future standards may be warranted and that environmental impacts should be explored in an energy conservation standards rulemaking. Therefore, DOE has determined that promulgation of this rule is not a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA, and does not require an environmental assessment or an environmental impact statement.

E. Review Under Executive Order 13132

E.O. 13132, "Federalism," 64 FR 43255 (Aug. 10, 1999), imposes certain requirements on Federal agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. The Executive order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and to carefully assess the necessity for such actions. The Executive order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process it will follow in the development of such regulations. 65 FR 13735. DOE has examined this determination and concludes that it would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to energy conservation for the product that is the subject of this determination. States can petition DOE for exemption from such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297) Therefore, no further action is required by E.O. 13132.

F. Review Under Executive Order 12988

With respect to the review of existing regulations and the promulgation of new regulations, section 3(a) of E.O. 12988, "Civil Justice Reform," imposes on Federal agencies the general duty to adhere to the following requirements: (1) eliminate drafting errors and ambiguity, (2) write regulations to minimize litigation, (3) provide a clear legal standard for affected conduct rather than a general standard, and (4) promote simplification and burden reduction. 61 FR 4729 (Feb. 7, 1996). Regarding the review required by section 3(a), section 3(b) of E.O. 12988 specifically requires that executive agencies make every reasonable effort to ensure that

the regulation: (1) clearly specifies the preemptive effect, if any, (2) clearly specifies any effect on existing Federal law or regulation, (3) provides a clear legal standard for affected conduct while promoting simplification and burden reduction, (4) specifies the retroactive effect, if any, (5) adequately defines key terms, and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of E.O. 12988 requires executive agencies to review regulations in light of applicable standards in section 3(a) and section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this determination meets the relevant standards of E.O. 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 ("UMRA") requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments, and the private sector. Pub. L. 104-4, sec. 201 (codified at 2 U.S.C. 1531). For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish a written statement that estimates the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) The UMRA requires a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed "significant intergovernmental mandate," and requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirement that might significantly or uniquely affect them. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. DOE's policy statement is also available at *www.energy.gov/sites/prod/files/gcprod/documents/umra_97.pdf*.

DOE examined this determination according to UMRA and its statement of policy and determined that the determination does not contain a Federal intergovernmental mandate, nor is it expected to require expenditures of $100 million or more in any one year by State, local, and Tribal governments, in the aggregate, or by the private sector. As a result, the analytical requirements of UMRA do not apply.

H. Review Under the Treasury and General Government Appropriations Act of 1999

Section 654 of the Treasury and General Government Appropriations Act of 1999 (Pub. L. 105-277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. This determination would not have any impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

Pursuant to E.O. 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights" 53 FR 8859 (Mar. 15, 1988), DOE has determined that this determination would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act of 2001

Section 515 of the Treasury and General Government Appropriation Act, 2001 (44 U.S.C. 3516, note) provides for Federal agencies to review most disseminations of information to the public under information quality guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). Pursuant to OMB Memorandum M-19-15, Improving Implementation of the Information Quality Act (April 24,

2019), DOE published updated guidelines which are available at *www.energy.gov/sites/prod/files/2019/12/f70/DOE%20Final%20Updated%20IQA%20Guidelines%20Dec%202019.pdf*. DOE has reviewed this determination under the OMB and DOE guidelines and has concluded that it is consistent with applicable policies in those guidelines.

K. Review Under Executive Order 13211

E.O. 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use," 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OIRA a Statement of Energy Effects for any significant energy action. A "significant energy action" is defined as any action by an agency that promulgates or is expected to lead to promulgation of a final rule, and that (1) is a significant regulatory action under E.O. 12866, or any successor Executive order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use should the proposal be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use.

This determination, which does not amend or establish energy conservation standards for air cleaners, is not a significant regulatory action under E. O. 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy, nor has it been designated as such by the Administrator at OIRA. Accordingly, DOE has not prepared a Statement of Energy Effects.

L. Information Quality

On December 16, 2004, OMB, in consultation with the Office of Science and Technology Policy ("OSTP"), issued its Final Information Quality Bulletin for Peer Review ("the Bulletin"). 70 FR 2664 (Jan. 14, 2005). The Bulletin establishes that certain scientific information shall be peer reviewed by qualified specialists before it is disseminated by the Federal Government, including influential scientific information related to agency regulatory actions. The purpose of the bulletin is to enhance the quality and credibility of the Government's scientific information. Under the Bulletin, the energy conservation standards rulemaking analyses are "influential scientific information," which the Bulletin defines as "scientific information the agency reasonably can determine will have, or does have, a clear and substantial impact on important public policies or private sector decisions." *Id.* at 70 FR 2667.

In response to OMB's Bulletin, DOE conducted formal peer reviews of the energy conservation standards development process and the analyses that are typically used and has prepared a Peer Review report pertaining to the energy conservation standards rulemaking analyses.[16] Generation of this report involved a rigorous, formal, and documented evaluation using objective criteria and qualified and independent reviewers to make a judgment as to the technical/scientific/business merit, the actual or anticipated results, and the productivity and management effectiveness of programs and/or projects. Because available data, models, and technological understanding have changed since 2007, DOE has engaged with the National Academy of Sciences to review DOE's analytical methodologies to ascertain whether

[16] "Energy Conservation Standards Rulemaking Peer Review Report." 2007. Available at www.*energy.gov/eere/buildings/downloads/energy-conservation-standards-rulemaking-peer-review-report-0*.

modifications are needed to improve the Department's analyses. DOE is in the process of evaluating the resulting report.[17]

M. Congressional Notification.

As required by 5 U.S.C. 801, DOE will report to Congress on the promulgation of this final determination prior to its effective date. The report will state that it has been determined that the final determination is not a ''major rule'' as defined by 5 U.S.C. 804(2).

VI. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this final determination.

List of Subjects in 10 CFR Part 430

Administrative practice and procedure, Confidential business information, Energy conservation, Intergovernmental relations, Reporting and recordkeeping requirements, Small businesses.

Signing Authority

This document of the Department of Energy was signed on June 21, 2022, by Kelly J. Speakes-Backman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for

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[17] The report is available at *www.nationalacademies.org/our-work/review-of-methods-for-setting-building-and-equipment-performance-standards.*

publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on June 22, 2022.

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Treena V. Garrett
Federal Register Liaison Officer,
U.S. Department of Energy

For the reasons stated in the preamble, DOE amends part 430 of Chapter II of Title 10, Code of Federal Regulations as set forth below:

PART 430 -- ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS

1. The authority citation for part 430 continues to read as follows:

Authority: 42 U.S.C. 6291–6309; 28 U.S.C. 2461 note.

2. Section 430.2 is amended by adding in alphabetical order the definition of "air cleaner" to read as follows:

§430.2 Definitions.

* * * * *

Air cleaner means a product for improving indoor air quality, other than a central air conditioner, room air conditioner, portable air conditioner, dehumidifier, or furnace, that is an electrically-powered, self-contained, mechanically encased assembly that contains means to remove, destroy, or deactivate particulates, VOC, and/or microorganisms from the air. It excludes products that operate solely by means of ultraviolet light without a fan for air circulation.

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